VO MHI CUUJ Rec'd PCT/PTB

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



534 222

(10) International Publication Number PCT

(43) International Publication Date 21 May 2004 (21.05.2004)

(51) International Patent Classification7: B01D 3/02, 5/00

C02F 1/04,

(21) International Application Number:

PCT/AU2003/001480

(22) International Filing Date:

10 November 2003 (10.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2002952560 8 November 2002 (08:11.2002) AU-2003900340 28 January 2003 (28.01.2003) AU 2003902401 19 May 2003 (19.05.2003) AU 2003903947 30 July 2003 (30.07.2003) AU

(71) Applicant (for all designated States except US): H2O HOLDINGS PTY LTD [AU/AU]; Hoddinott Consulting University of Newcastle Coast, Campus, 1 Chittaway Road, Ourimbah, NSW 2258 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): FINN, John, Barry

[AU/AU]; 1 Ourimbah Street, Lisarow, NSW 2250 (AU). JENKINS, Brian, Douglas [AU/AU]; 6 Hargrave Street, Wyong, NSW 2259 (AU).

WO 2004/041727 A1

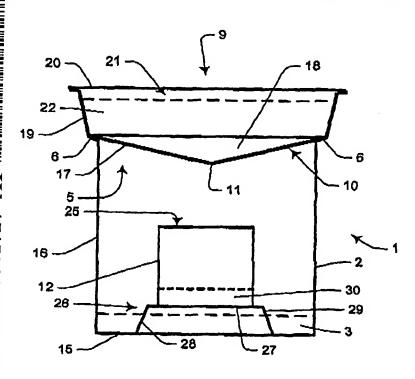
- (74) Agent: BLADWIN SHELSTON WATERS; 60 Margaret Street, Sydney, NSW 2000 (AU).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: A DISTILLATION UNIT AND A METHOD OF DISTILLATION



(57) Abstract: A distillation unit (1) includes a container in the form of a generally cylindrical steel pot (2) for receiving a first liquid (3). The liquid is evaporated following application of heat from a heat source (4) to form a liquid vapour. Pot (2) has an upwardly facing generally circular opening (5) defined by a peripheral edge in the form of a continuous annular lip (6), A heat exchanger in the form of a generally circular stainless steel dish (9) engages substantially all of lip (6) and extends across substantially all of opening (5). Dish (9) has a downwardly facing substantially frusto-conical condensation surface (10) both for condensing the liquid vapour that contacts surface (10) and for directing the condensate inwardly from lip (6) to a central collection zone (11) that is a substantially planar and horizontal surface. A collector in the form of a metal drinking cup (12) is disposed within pot (2) for receiving the condensate.